Three Simple Questions

A Model for District-Wide Data Analysis

Nebraska Data Conference 2012

It's More Than Numbers

April 2-3, 2012

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Session Topics

- The Rationale
- The Framework
- The Format
- The District Perspective

Rationale

The Rationale

- Purposeful use of data necessitates a cultural shift that attends to issues of leadership, policy, accountability, shared beliefs, and collaboration.

- Building data capacity means establishing data teams/ coaches and designating time each year for collaborative analysis.

(Ronka, Lachat, Slaughter, & Meltzer, 2009)

The Rationale

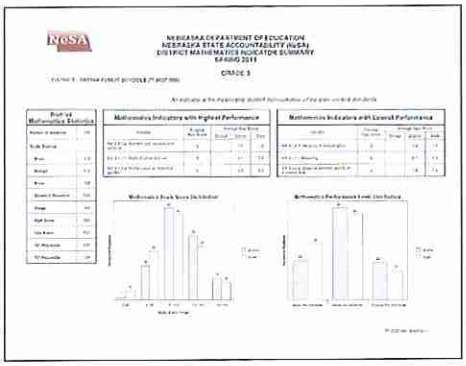
- High quality professional development for teachers and administrators around the use of data is perceived as essential but currently lacking in many schools.
- While collaboration around the use of data is extremely important, teachers and administrators often work on data in isolation.

(Ronka, Lachat, Slaughter, & Meltzer, 2009)

The Framework

The Framework – Three Simple Questions

- What do the data show?



The Framework – Three Simple Questions

- What do the data show?
- Why might this be?

The Framework – Three Simple Questions

- What do the data show?
- Why might this be?
- How shall we respond?

The Framework - Grouping

- Building/Grade
  - Elementary
  - Middle
  - High School
- Data Points/Content
  - Reading
  - Math
  - Writing

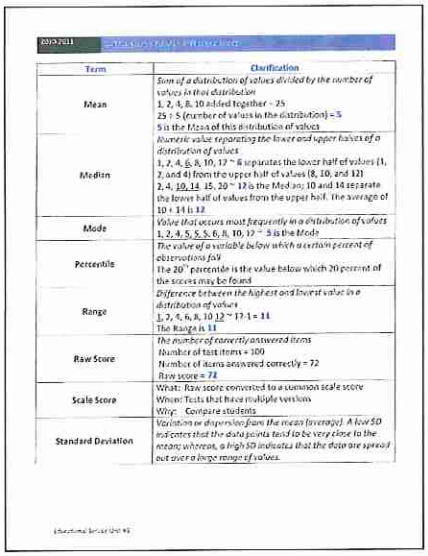
Format

Session Format - Agenda

- ✓ Clarification of Terms
- ✓ Assessment Data Overview
- ✓ Data Reports and Formats
- ✓ Analyzing the Data
- ✓ Next Steps

Clarification of Terms

- Mean
- Median
- Mode
- Percentile
- Range
- Raw Score
- Scale Score
- Standard Deviation



Term	Clarification
Mean	*Sum of a distribution of values divided by the number of values in that distribution* 1, 2, 4, 8, 10 added together = 25 25 ÷ 5 (number of values in the distribution) = 5 5 is the Mean of this distribution of values
Median	*Numeric value separating the lower and upper halves of a distribution of values* 1, 2, 4, 6, 8, 10, 17 ~ 6 separates the lower half of values (1, 2, and 4) from the upper half of values (8, 10, and 12) 2, 4, 10, 14, 15, 20 ~ 12 is the Median; 10 and 14 separate the lower half of values from the upper half. The average of 10 + 14 is 12
Mode	*Value that occurs most frequently in a distribution of values* 1, 2, 4, 5, 5, 5, 6, 8, 10, 17 ~ 5 is the Mode
Percentile	*The value of a variable below which a certain percent of observations fall* The 20th percentile is the value below which 20 percent of the scores may be found
Range	*Difference between the highest and lowest value in a distribution of values* 1, 2, 4, 6, 8, 10 12 ~ 12-1 = 11 The Range is 11
Raw Score	*the number of correctly answered items* Number of test items = 100 Number of items answered correctly = 72 Raw score = 72
Scale Score	What: Raw score converted to a common scale score When: Tests that have multiple versions Why: Compare students
Standard Deviation	*Variation or dispersion from the mean (average). A low SD indicates that the data points tend to be very close to the mean; whereas, a high SD indicates that the data are spread out over a large range of values.*

Assessment Data Overview

- NeSA Reading
  - Comprehension
  - Vocabulary
- NeSA Math
  - Number Sense
  - Geometric/Measurement
  - Algebraic
  - Data Analysis/ Probability
- NeSA Writing
  - Grade 4

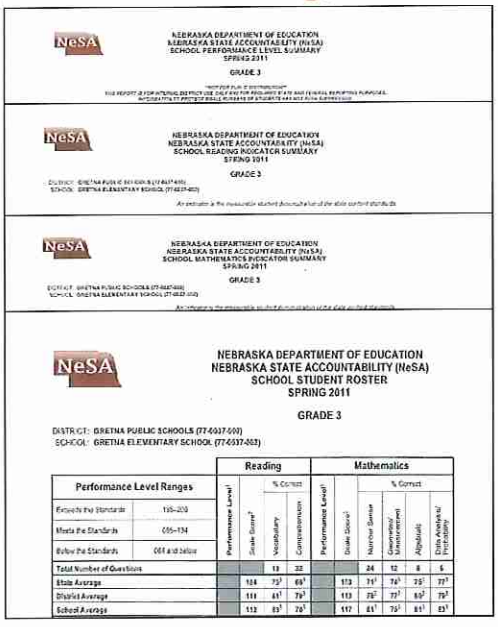
Assessment Reports and Formats

2011 NeSA Data – Reading and Math – Grades 3,4, and 5

- ✓ District Reports
  - ✓ School Performance Summary
  - ✓ Performance Level Summary
  - ✓ Reading Indicator Summary
  - ✓ Math Indicator Summary

- ✓ School Reports
  - ✓ Performance Level Summary
  - ✓ Reading Indicator Summary
  - ✓ Math Indicator Summary
  - ✓ Reading and Math Subtest Results

NeSA Reading, Math School Reports



NEBRASKA DEPARTMENT OF EDUCATION
NEBRASKA STATE ACCOUNTABILITY (NeSA)
SCHOOL PERFORMANCE LEVEL SUMMARY
SPRING 2011
GRADE 3

NEBRASKA DEPARTMENT OF EDUCATION
NEBRASKA STATE ACCOUNTABILITY (NeSA)
SCHOOL READING INDICATOR SUMMARY
SPRING 2011
GRADE 3

NEBRASKA DEPARTMENT OF EDUCATION
NEBRASKA STATE ACCOUNTABILITY (NeSA)
SCHOOL MATHEMATICS INDICATOR SUMMARY
SPRING 2011
GRADE 3

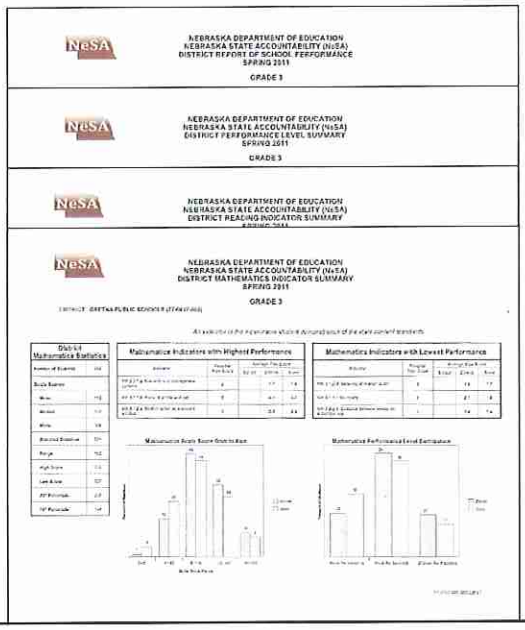
NEBRASKA DEPARTMENT OF EDUCATION
NEBRASKA STATE ACCOUNTABILITY (NeSA)
SCHOOL STUDENT ROSTER
SPRING 2011
GRADE 3

DISTRICT: GRETNA PUBLIC SCHOOLS (77-0037-000)
SCHOOL: GRETNA ELEMENTARY SCHOOL (77-0037-002)

Performance Level Ranges		Reading				Mathematics					
		Performance Level[1]	Scale Score[2]	% Correct: Vocabulary	% Correct: Comprehension	Performance Level[1]	Scale Score[2]	% Correct: Number Sense	% Correct: Geometry/ Measurement	% Correct: Algebraic	% Correct: Data Analysis/ Probability
Exceeds the Standards	195–200										
Meets the Standards	055–194										
Below the Standards	004 and below										
Total Number of Questions				13	32			24	12	8	6
State Average			104	73[3]	69[3]		113	71[3]	74[3]	75[3]	77[3]
District Average			111	83[3]	79[3]		113	75[3]	77[3]	69[3]	79[3]
School Average			112	83[3]	79[3]		112	83[3]	79[3]	81[3]	83[3]

- Performance Level Summary
- Reading Indicator Summary
- Math Indicator Summary
- Reading and Math Subtest Results

NeSA Reading, Math District Reports


NEBRASKA DEPARTMENT OF EDUCATION
NEBRASKA STATE ACCOUNTABILITY (NeSA)
DISTRICT REPORT OF SCHOOL PERFORMANCE
SPRING 2011
GRADE 3

NEBRASKA DEPARTMENT OF EDUCATION
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DISTRICT PERFORMANCE LEVEL SUMMARY
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NEBRASKA DEPARTMENT OF EDUCATION
NEBRASKA STATE ACCOUNTABILITY (NeSA)
DISTRICT READING INDICATOR SUMMARY

NEBRASKA DEPARTMENT OF EDUCATION
NEBRASKA STATE ACCOUNTABILITY (NeSA)
DISTRICT MATHEMATICS INDICATOR SUMMARY
SPRING 2011
GRADE 3

- School Performance Summary
- Performance Level Summary
- Reading Indicator Summary
- Math Indicator Summary

Assessment Reports and Formats

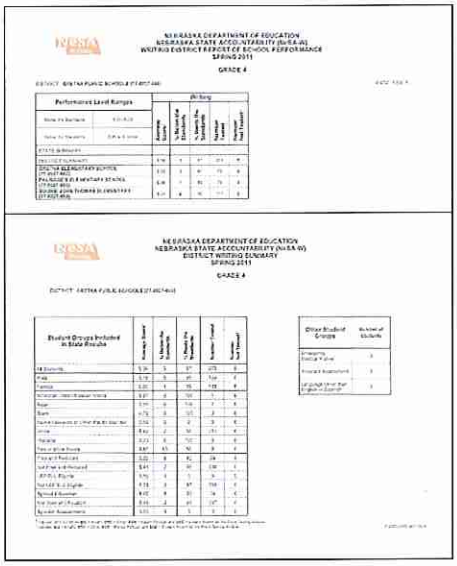
2010 NeSA Data – Reading– Grades 3,4, and 5

- District Reports
  - ✓ School Performance Summary
  - ✓ Performance Level Summary
  - ✓ Reading Indicator Summary
  - ✓ Math Indicator Summary

For Comparison

- School Reports
  - ✓ Performance Level Summary
  - ✓ Reading Indicator Summary
  - ✓ Math Indicator Summary
  - ✓ Reading Subtest Results

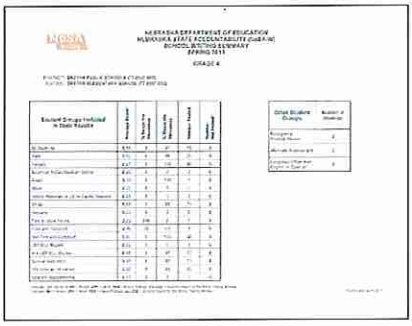
NeSA Writing District Reports



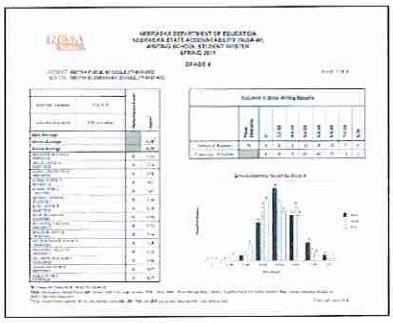
- School Performance Summary
- Student Groups Summary

NeSA Writing School Reports

Student Groups Summary

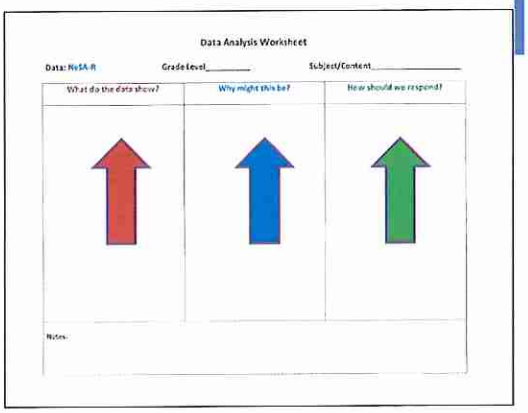


Distribution of Scores



Analyzing the Data - Individual Work

- Review the data for the content assigned
- Use the worksheet to record your observations and reflections


Data Analysis Worksheet

Data: NoSA-R Grade Level_____ Subject/Content_____

What do the data show?	Why might this be?	How should we respond?

Notes:

Analyzing the Data - Group Work

- Each member shares the results of their own analysis.
- Group charts a summary of their findings.
- ESU 3 staff will assist each group.
- Group reports a summary of their findings.

District-Wide Data Analysis – A District Perspective

COMMENTS and QUESTIONS

Thank You

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